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ABSTRACT

This resource kit includes the following: Executive Summary; Legal Fact Sheet; Resource Guide; 26-minute "I Can Soar" Videotape; Video User's Guide; and Stories of Students Featured in Video. The materials provide tips to hep guide consumers in better integrating assistive technology (AT) within effective programs and services for children with disabilities. The Fact Sheet focuses on AT requirements under the Individuals with Disabilities Education Act. The Resource Guide includes an extensive list of resources that help children with disabilities access the chronological tools necessary to succeed in school. It is divided into six categories: government agencies; national organizations; Tech Act projects; Alliance for Technology Access Resource Centers; special education Regional Resource Centers; and researchers as resources. The 26-minute videotape, "Assistive Technology: I Can Soar," discusses real life challenges faced by students with disabilities, benefits to using AT, and strategies for integrating AT into daily routines. It includes footage of assistive tools being incorporated into the students' lives at home, at school, and in the community. The Video User's Guide describes the components of the kit, provides basic information about AT, and offers suggestions on how to use the kit. Seven recommended best practice principles, reflecting lessons learned on implementing effective strategies and reducing barriers in the selection and use of AT are recurring themes in the stories of the children featured in the video and in the vignettes in the last section of the resource kit. The seven principles are: (1) providing leadership; (2) supporting stakeholder collaboration; (3) monitoring impact; (4) building capacity; (5) reducing

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fear and becoming comfortable with technology; (6) acknowledging diversity; and (7) focusing on supporting student learning. The materials in this kit can be used by family members, teachers, and administrators, as well as by teacher trainers and policymakers to raise awareness, initiate discussion, and provide guidance on the most effective ways to implement assistive technology in schools and classrooms. (CR)

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I CAN SOAR

HOW TECHNOLOGY HELPS STUDENTS TAKE OFF

A resource kit for parents, educators, and school administrators who work with students who have disabilities.

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IDEAs that Work
U.S. Office of Special Education Programs

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I CAN SOAR

HOW TECHNOLOGY HELPS STUDENTS TAKE OFF

Kit Contents Include:

- Executive Summary
- Legal Fact Sheet
- Resource Guide
- 26-minute "*I Can Soar*" Video
- Video User's Guide
- Stories of Students Featured in Video

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EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

EXECUTIVE SUMMARY OF THE SYNTHESIS ON THE SELECTION AND USE OF ASSISTIVE TECHNOLOGY

Prepared by: Allison Gruner, Erin Fleming, Bradley Carl, Christina M. Diamond, Kristin L.A. Ruedel, Jessica Saunders, Christine Paulsen, and Maurice McInerney

The use of technology in education can have a significant impact on the delivery of services to students with disabilities, yet its potential cannot be fully realized unless it is implemented appropriately. In an effort to examine implementation issues more closely, the U.S. Office of Special Education Programs commissioned the American Institutes for Research to produce a synthesis report on this topic. This report gathered and analyzed information from 47 assistive technology projects. The final report recommends a set of seven, best practice principles that reflect lessons learned about how to implement effective strategies and reduce barriers to selecting and using assistive technology. (See sidebar.)

In the accompanying video, students, their families, their teachers, and administrators reveal how assistive technology has bettered their lives, both inside and outside of school. In the materials herein, we provide tips to help guide consumers, such as yourself, in better integrating assistive technology within effective programs and services for children with disabilities. The seven principles, described in greater detail below, are recurring themes in the stories of the children in the video and are illustrated in the vignettes that follow.

Principle #1: Providing leadership

One of the most critical contributors to the success of any educational intervention is the presence of strong leadership. Leadership, whether at the Federal, state, district, or building level, establishes and gains acceptance for an overarching vision, fosters a common set of goals and objectives, and cultivates a sense of commitment and excitement about the intervention among students, families, teachers, and staff.

- *1. Providing leadership;*
- *2. Supporting stakeholder collaboration;*
- *3. Monitoring impact;*
- *4. Building capacity;*
- *5. Reducing fear and becoming comfortable with technology;*
- *6. Acknowledging diversity; and*
- *7. Focusing on supporting student learning.*

Principle #2: Supporting stakeholder collaboration

Teamwork involving teachers, students, family members, administrators, researchers, and policy-makers plays an important role in the success of any intervention. Assistive technology is no different and requires collaboration among several different groups of stakeholders in order for it to realize benefits for students with disabilities.

Principle #3: Monitoring impact

Monitoring impact helps schools constantly evaluate and improve their services. Monitoring also provides a means for compiling tangible indicators of results, which can generate credibility and enthusiasm for the intervention. Finally, monitoring helps focus the stakeholders' attention on issues of effectiveness in service provision.

Principle #4: Building capacity

The most effective way to reach every child who is in need is to work to build the capacity of service providers all over the country to provide needed services. Effective capacity building involves four essential elements: (1) acquiring the necessary infrastructure and skills to deliver assistive technology services, (2) assuming ownership for implementation of assistive technology services, (3) devising plans for effective implementation and follow-through, and (4) creating sustainable mechanisms for continued services.

Principle #5: Reducing fear and becoming comfortable with technology

Assistive technology is not common terminology for families or educators, and the thought of it can make people feel uncomfortable. People often do not feel like they know enough about what is available, how to learn about it, how to access it, how to use it, and how to pay for it. This type of discomfort and lack of confidence regarding assistive technology tends to make people hesitant about using it. They may not be willing to take any risks in trying a new tactic that could open up scores of opportunities for their child or student.

Principle #6: Acknowledging diversity

Students in need of assistive technology represent a variety of backgrounds, including diverse racial-ethnic groups, language- or cultural-minority groups, rural, inner city, or other hard-to-reach areas, low-income groups, and other traditionally underserved populations. Given this range of stakeholders that could benefit from assistive technology, it is important for service providers to proactively reach out to such a broad base. More importantly, service providers need to be sensitive to the different cultural values and norms that characterize specific groups. In many cases, cultural barriers can limit the ability of users to truly benefit from otherwise successful services and programs.

Principle #7: Focusing on supporting student learning

It is important to remember that assistive technology is merely a tool and that perhaps the most critical principle is to keep the focus on the ultimate goal—which is to use technology to support student learning and high achievement. It is too easy to lose this focus quickly and to get caught up in the complicated technical, legal, and financial aspects that can make accessing technology challenging. Current and potential users of assistive technology should always be thinking of how these tools can support the specific, unique needs of a student with a disability; and if the tool doesn't support those needs, then it is not a solution.

FACT SHEET

FACT SHEET

ASSISTIVE TECHNOLOGY AND IDEA '97:

WHAT DOES THE IDEA SAY ABOUT ASSISTIVE TECHNOLOGY FOR STUDENTS WITH DISABILITIES?

The IEP Team shall...consider whether the child requires assistive technology devices and services. (Sec. 614(d)(3)(B)(v))

The 1997 amendments to the Individuals with Disabilities Education Act (IDEA) recognize the importance of assistive technology for students with disabilities by requiring, for the first time, that assistive technology devices and services be considered in the development of every child's Individualized Education Program (IEP).

IDEA defines

- *an assistive technology device as any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve functional capabilities of a child with a disability, and*

- *an assistive technology service as any service that directly assists a child with a disability in the selection, acquisition, or use of an assistive technology device.*

Assistive technology devices range from the simplest, everyday tools to the most high-tech technology innovations. These devices can help increase the independence of students with disabilities, as well as help students master basic skills and meet the same academic standards as their nondisabled peers.

It is the responsibility of the IEP team to make the necessary decisions regarding services for children with disabilities that are consistent with IDEA '97. Decisions about whether a child requires assistive technology devices or services are no exception to this rule.

Under the IDEA, the IEP team must include the following individuals:

- *the parents of the child;*
- *at least one regular education teacher of the child (if the child is, or may be, participating in the general education environment);*
- *at least one special education teacher of the child or, if appropriate, at least one special education provider of the child;*
- *a representative of the public agency who is qualified to provide, or supervise the provision of, specially designed instruction to meet the individual needs of children with disabilities; is knowledgeable about the general education curriculum; and is knowledgeable about the availability of resources of the public agency;*
- *an individual who can interpret the instructional implications of evaluation results, who may be a member of the team described above; and*
- *if appropriate, the child.*

In addition, at the discretion of the parents or the agency, any other individuals who have knowledge or special expertise regarding the child, including related services personnel as appropriate, may be invited to join the team. This may include a specialist in assistive technology. Such an expert may be called in to perform an assistive technology assessment with the child, provide information regarding the availability, use, and the cost of an assistive technology device or service, and assist in developing goals for the child's IEP.

The Resource Guide included in these materials provides additional information about where to locate information about assistive technology, including where to find specialists in assistive technology.

RESOURCE GUIDE

RESOURCE GUIDE

Council for Exceptional Children

IDEAs that Work
U.S. Office of Special Education Programs

RESOURCE GUIDE

This guide lists many resources on the national and state levels that can be drawn upon by parents, teachers, and administrators when helping children with disabilities access the technological tools necessary to succeed in school. The guide is divided into six categories of resources:

- *Government Agencies,*
- *National Organizations,*
- *Tech Act Projects (TAPs),*
- *Alliance for Technology Access Resource Centers,*
- *Special Education Resource Centers, and*
- *Researchers as Resources.*

Each section includes a description of the resource category and a list of resources, followed by contact information when possible. The listings presented here are by no means exhaustive but are intended as an introduction to what is available on a state and national level. If they cannot provide the services you need, many of the individuals and organizations listed here can direct you to other organizations. The inclusion of any resource or individual in this guide is in no way an endorsement of that resource or individual by the U.S. Department of Education.

A variety of sources are available at all levels to help you build an information network, but funding, support services, and information sources are often local. In fact, districts frequently receive more help from regional, state, and local organizations than from national ones. With this in mind, many of the resources listed below may direct you to further resources closer to home.

GOVERNMENT AGENCIES

U.S. Department of Education

400 Maryland Avenue, S.W.
Washington, DC 20202
http://www.ed.gov

Office of Special Education and Rehabilitation Services (OSERS)

U.S. Department of Education
Room 3090
Switzer Building
330 C Street, S.W.
Washington, DC 20202
http://www.ed.gov/offices/OSERS

NATIONAL ORGANIZATIONS AND RESOURCES

Many national organizations have local chapters throughout the country and, in some cases, try to meet the specific needs of parents, teachers, and administrators by providing school-specific information and services. While not all of the organizations listed below deal with assistive technology directly, all provide assistive technology services and can tell you how to contact other appropriate organizations.

ABLEDATA

8455 Colesville Road, Suite 935
Silver Spring, MD 20910
(301) 608-8998 or (800) 227-0216 (Voice)
(301) 608-8912 (TTY)
http://www.abledata.com

ABLEDATA is an electronic database of information on and detailed descriptions of assistive technology and rehabilitation equipment available in the United States. The database lists over 22,000 commercially available products, noncommercial prototypes, customized products, and one-of-a-kind products. Searches can be conducted through their Web site or by contacting an information specialist at the above numbers.

Associations of Service Providers Implementing IDEA Reforms in Education *(ASPIIRE)*

The Council for Exceptional Children
1110 North Glebe Road, Suite 300
Arlington, VA 22201-5704
(877) CEC-IDEA
(866) 915-5000
ideapractices@cec.sped.org
http://www.ideapractices.org/aspiire.htm

ASPIIRE is an organization that brings together teachers and related services providers by partnering with more than 16 educational and related services associations to provide the needed information, ideas, and technical assistance to implement IDEA '97.

Elementary and Middle Schools Technical Assistance Center *(EMSTAC)*

American Institutes for Research
1000 Thomas Jefferson Street, N.W., Suite 400
Washington, DC 20007
(202) 944-5300 (Voice)
(877) 334-3499 (TTY)
emstac@air.org
http://www.emstac.org

The mission of EMSTAC is to identify and meet the technical assistance needs of elementary and middle schools to improve educational outcomes for children with disabilities. EMSTAC is testing three strategies for providing technical assistance in order to develop a comprehensive technical assistance approach that can be used nationwide.

Families and Advocates Partnership for Education *(FAPE)*

PACER Center
8161 Normandale Boulevard
Bloomington, MN 55437-1044
(952) 838-9000 or (888) 248-0822 (Voice)
(952) 838-0190 (TTY)
fape@pacer.org
http://www.fape.org

FAPE aims to inform and educate families and advocates about the Individuals with Disabilities Education Act of 1997 and promising practices. links families, advocates, and self-advocates.

Family Center on Technology and Disability

UCP/FCTD
1660 L Street, N.W.
Washington, DC 20036
(800) USA-5UCP (Voice)
(202) 973-7197 (TDD)
http://fctd.ucp.org/fctd/taboutfctdt.htm

The purpose of the Family Center is to assist organizations and programs serving families of children with disabilities by providing information and support on accessing and using assistive technology. The Family Center Web site includes a database of materials, informational resources, model programs that provide technology information, and contact information on the members of our network of organizations. The following model programs were included in the OSEP-sponsored report on the appropriate selection and use of assistive technology:

Assistive Technology Library of Alaska *(ATLA)*
2217 East Tudor Road, #4
Anchorage, AK 99507
(907) 563-2599
atla@alaska.net

ATLA's goal is to help individuals and families overcome barriers to finding and accessing appropriate assistive technology. ATLA offers assessments and recommendations, provides sale or rental of technology products, offers training in the use and maintenance of devices, and has a lending library. ATLA serves as a resource for people with disabilities from birth throughout the lifespan, parents, other family members, caregivers, educators, and professionals.

United Cerebral Palsy of Kansas *(UCP–K)*: Purchase of Assistive Technology Project
P.O. Box 2717
5111 East 21st Street
Wichita, KS 67208
(316) 688-1888

The overarching goal of this project is to assist families who have assistive technology needs to secure the necessary equipment. Its primary activities include collaborating with state, civic, and charitable organizations to develop innovative funding packages that will enable residents who have disabilities to obtain assistive technology. Annually, it strives to secure assistive technology and related services valued in excess of $300,000 for at least 200 families from across the state.

Parents Helping Parents—iTECH Center
3041 Olcott Street
Santa Clara, CA 95054
(408) 727-5775
http://www.php.com

The goal of the iTECH Center is to ensure that children and adults with special needs, their families, and the professionals who serve them are aware of and utilize technology to enhance potential and to broaden the quality and enjoyment of their lives. To meet this goal, iTECH provides training and workshops and has a substantial number of technology devices available for individuals, families, and professionals to explore and try out at no cost.

United Cerebral Palsy Associations of New Jersey *(UCPA–NJ)*
Rehabilitation Technology Services
354 South Broad Street
Trenton, NJ 08608
(888) 322-1918
http://www.ucpanj.org

This agency's multiple technology-related projects share the common goal of helping individuals and families to identify the technology solutions that best meet their needs and to enable them to obtain and use the technology. The agency utilizes its extensive in-house technological expertise to assist individuals and families throughout the state by conducting evaluations and trainings, providing custom fabrication of devices, as well as providing other services.

Assistive Technology Resource Center of Hawaii *(ATRC)*
414 Kuwili Street, Suite 104
Honolulu, HI 96817
(808) 532-7110
atrc@atrc.org
http://www.atrc.org

Through extensive collaborations with community-based organizations and private partners, ATRC works to fulfill its goals of promoting increased awareness and greater access to assistive technology and increasing consumer and provider skills, involvement, and empowerment with technology. Through catalogues, electronic databases, and other resources, ATRC has access to information on more than 24,000 assistive technology devices and also provides workshops, training, equipment lending libraries, and a computer lab.

United Cerebral Palsy of Greater Suffolk, Mobility Opportunities Via Education *(MOVE)*
The Children's Center
United Cerebral Palsy Association of Greater Suffolk
250 Marcus Boulevard
Happauge, NY 11788-8845
(516) 543-2338

MOVE is a therapeutic and educational program designed to help people learn the skills needed for sitting, standing, and walking. This collaborative program utilizes the services and knowledge of parents, educators, therapists, and other support personnel to help participants learn and practice skills while engaged in activities of daily living.

IDEA Local Implementation by Local Administrators *(ILIAD)*
The Council for Exceptional Children
1110 North Glebe Road, Suite 300
Arlington, VA 22201-5704
(877) CEC-IDEA (Voice)
(866) 915-5000 (TTY)
ideapractices@cec.sped.org
http://www.ideapractices.org/iliad.htm

ILIAD supports associations of educational leaders, involving more than 16 educational and related services associations to provide the needed information, ideas, and technical assistance to implement IDEA '97.

LINK US

Center to Link Urban Schools with Information and Support on Technology and Special Education
Education Development Center, Inc.

55 Chapel Street
Newton, MA 02158
(617) 969-7100
http://www.edc.org/LINKUS

The purpose of this project is to develop a model that guides urban schools in their quest to access and effectively utilize information and support about the use of technology for students with disabilities. To build this model, LINK US is initially working with two urban school districts: Boston, MA, and New York Community School District 15.

National Center on Accessing the General Curriculum *(NCAC)*

Center for Applied Special Technology
39 Cross Street
Peabody, MA 01960
(978) 531-8555 (Voice)
(978) 531-3110 (TTY)
chitchcock@cast.org
http://www.cast.org/ncac

The NCAC is a strategic research program to synthesize existing knowledge, to evaluate policies that affect access to the general education curriculum, and to plan and implement national leadership and dissemination activities. It was established to provide a vision of how new curricula, teaching practices, and policies can be woven together to create practical approaches for improved access to the general curriculum by students with disabilities.

National Center to Improve Tools of Educators *(NCITE)*

University of Oregon
DLIL College of Education
1211 University of Oregon
Eugene, OR 9703-1211
(541) 346-1646
http://darkwing.uoregon.edu/~ncite/

NCITE's mission is to advance the quality of technology, media, and materials for students with diverse learning needs by assisting publishers in developing high-quality tools. The work of NCITE is to continue the identification and analysis of curriculum design principles for their efficacy with diverse learners and feasibility of translation into educational materials, media, and technology.

National Center on Secondary Education and Transition

University of Minnesota
102 Pattee Hall
150 Pillsbury Drive, S.E.
Minneapolis, MN 55455
(612) 624-2097
ncset@icimail.coled.umn.edu
http://ici.umn.edu/ncset

The National Center on Secondary Education and Transition seeks to increase the capacity of national, state, and local agencies and organizations to improve secondary education and transition results for youth with disabilities and their families by coordinating national resources that connect policymakers, administrators, professionals, educators, employers, parents, and youth with disabilities to information and useful resources; by developing research-to-practice tools for everyday use; and by providing technical assistance and outreach.

National Early Childhood Technical Assistance System *(NECTAS)*

137 East Franklin Street, Suite 500
Chapel Hill, NC 27514-3628
(919) 962-2001 (Voice)
(877) 574-3194 (TTY)
nectas@unc.edu
http://www.nectas.unc.edu

NECTAS is a national technical assistance consortium working to support states, jurisdictions, and others to improve services and results for young children with disabilities and their families. The consortium is composed of the following six organizations: the Frank Porter Graham Child Development Center, the Federation for Children with Special Needs, the Georgetown University Child Development Center, the National Association of State Directors of Special Education (NASDSE), and ZERO TO THREE.

National Information Center for Children and Youth with Disabilities *(NICHCY)*

Academy for Educational Development
P.O. Box 1492
Washington, DC 20013-1492
(202) 884-8200 or (800) 695-0285 (Voice)
(202) 884-8441 (TTY)
nichcy@aed.org
http://www.nichcy.org

NICHCY is the national information and referral center that provides information on disabilities and disability-related issues for families, educators, and other professionals, with a special focus on children and youth (birth to age 22). Services include information specialists, publications, databases, library, and referrals to other disability organizations.

National Parent Network on Disabilities *(NPND)*

1727 King Street, Suite 305
Alexandria, VA 22314
(703) 684-6763
http://www.npnd.org

The NPND is a membership organization open to all agencies, organizations, parent centers, parent groups, professionals, and individuals concerned with the quality of life for people with disabilities.

National School Boards Association *(NSBA)*

1680 Duke Street
Alexandria, VA 22314
(703) 838-6722
http://www.nsba.org

NSBA is a not-for-profit federation of state associations of school boards across the United States and the school boards of the District of Columbia, Guam, Hawaii, Puerto Rico, and the U.S. Virgin Islands. NSBA represents the nation's 95,000 school board members. These board members govern 14,772 local school districts that serve more than 45 million public school students—approximately 90 percent of all elementary and secondary school students in the nation.

Parents and Educators Resource Center *(PERC)*

1660 South Amphlett Boulevard, Suite 200
San Mateo, CA 94402-2508
(415) 655-2410
http://www.perc-schwabfdn.org

PERC is a membership organization that conducts educational programs, publishes the quarterly Parent Journal newsletter, and offers information and referrals. PERC also maintains a library of books, articles, video and audiotapes, and recommended readings.

The PACER Center, Inc.

4826 Chicago Avenue South
Minneapolis, MN 55417
(612) 827-2966
http://www.pacer.org

The PACER Center offers 20 major disability and special education programs, including Parent Training programs, programs for students and schools, and technical assistance to parent centers both regionally and nationally.

Policymaker Partnership for Implementing IDEA '97 *(PMP)*

National Association of State Directors of Special Education
1800 Diagonal Road, Suite 320
Alexandria, VA 22314-2840
(703) 519-3800 or (877) IDEA-INFO (Voice)
(703) 519-7008 (TTY)
pmp@nasdse.org
http://www.ideapolicy.org

The Policymaker Partnership at the National Association of State Directors of Special Education increases the capacity of policymakers to act as informed change agents who are focused on improving educational results for students with disabilities.

Technical Assistance Alliance for Parent Centers—the Alliance

PACER Center
8161 Normandale Boulevard
Bloomington, MN 55437-1044
(952) 838-9000 or (888) 248-0822 (Voice)
(952) 838-0190 (TTY)
alliance@taalliance.org
http://www.taalliance.org

The Alliance focuses on providing technical assistance for establishing, developing, and coordinating parent training and information projects under the Individuals with Disabilities Education Act. The Alliance is prepared to offer a variety of resources that will launch parent training and information centers into the 21st Century.

Technology and Media Services for Individuals with Disabilities

University of Kentucky Assistive Technology Research Institute
Department of Special Education and Rehabilitation
229 Taylor Education Building
Lexington, KY 40506
(859) 257-7908
tsh@pop.uky.edu

This research project examines factors related to the planning, development, implementation, and evaluation of AT services in schools and disseminates the findings to school personnel to develop and/or improve AT policies and practices for students with disabilities.

TECH ACT PROJECTS *(TAPs)*

Technical Assistance Projects (TAPs) are funded under the Technology-Related Assistance for Individuals with Disabilities Act of 1988 and under amendments made in 1994, jointly referred to as the Tech Act. TAPs are designed to establish in each state consumer-responsive, comprehensive, statewide programs to increase access to assistive technology for individuals with disabilities and their families. Many states have authorized their Vocational Rehabilitation Agencies to oversee the implementation of their TAP, but several states have designated the State Department of Education as the lead agency. Other state TAPs are organized through the governor's office, are university-affiliated programs, or exist as independent organizations.

Services provided by TAPs include information and referral, equipment demonstration, training, and financial assistance. In fact, state TAPs can generally provide some of the most comprehensive information on financial issues in the state and, unlike other organizations, often support loan programs for the purchase of tools. These organizations are active in outreach to underrepresented and rural populations and in coordinating activities between other state agencies and private entities that provide assistive technology devices and services.

NATIONAL PROJECT

Technical Assistance Project

Rehabilitation Engineering and Assistive Technology Society of North America (RESNA)
1700 North Moore Street, Suite 1540
Arlington, VA 22209-1903
(703) 524-6686
http://www.resna.org/taproject

STATE PROJECTS

Alabama STAR: Statewide Technology Access and Response System for Alabamians with Disabilities

Alabama Department of Rehabilitation Services
2129 East South Boulevard
Montgomery, AL 36111
(334) 281-8780
http://www.rehab.state.al.us/star.html

Assistive Technologies of Alaska

1016 West 6th Avenue, Suite 205
Anchorage, AK 99501
(907) 563-0138 or (907) 269-3569
http://www.labor.state.ak.us/at/index.htm

Arizona Technology Access Program *(AzTAP)*

Northern Arizona University
2715 North 3rd Street, Suite 104
Phoenix, AZ 85004
(800) 477-9921
http://www.nau.edu/ihd/aztap/

Arkansas ICAN (Increasing Capabilities Access Network)

Arkansas Rehabilitation Services
2201 Brookwood Drive, Suite 117
Little Rock, AR 72202
(501) 666-8868 or (800) 828-2799
http://www.arkansas-ican.org

Assistive Technology Network (formerly CA AT System)

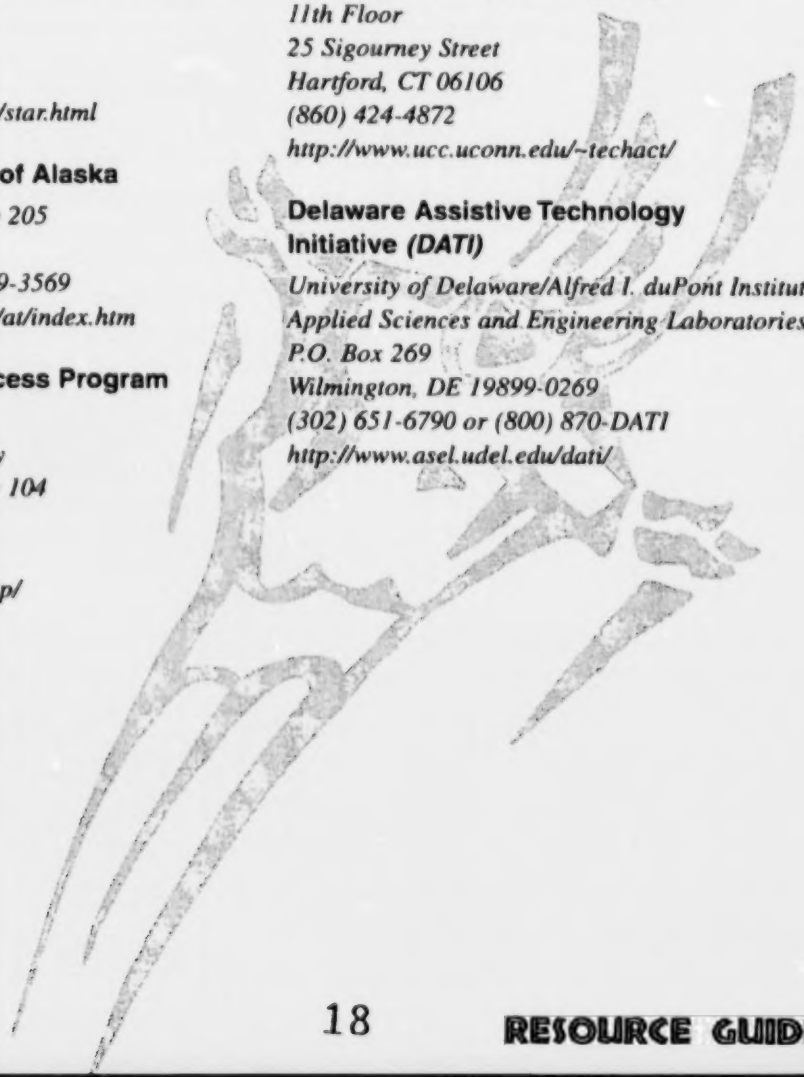
660 J Street, Suite 270
Sacramento, CA 95814
(800) 390-2699
http://www.atnet.org

Connecticut Tech Act Project *(CTTAP)*

Department of Social Services, BRS
11th Floor
25 Sigourney Street
Hartford, CT 06106
(860) 424-4872
http://www.ucc.uconn.edu/~techact/

Delaware Assistive Technology Initiative *(DATI)*

University of Delaware/Alfred I. duPont Institute
Applied Sciences and Engineering Laboratories
P.O. Box 269
Wilmington, DE 19899-0269
(302) 651-6790 or (800) 870-DATI
http://www.asel.udel.edu/dati/



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Florida Alliance for Assistive Services and Technology *(FAAST)*

1020 East Lafayette Street, Suite 110
Tallahassee, FL 32301-4546
(850) 487-3278
http://www.faast.org

Georgia Assistive Technology Program—Tools for Life

Georgia Department of Human Resources
Division of Rehabilitation Services
2 Peachtree Street N.W., Suite 23–411
Atlanta, GA 30303-3166
(404) 657-3084 or (800) 497-8665
http://www.gatfl.org

Guam System for Assistive Technology

University of Guam
Office of Academic Affairs
UOG Station
House #12 Dean's Circle
Mangilao, GU 96923
(671) 735-2490 or (671) 735-2493

Assistive Technology Resource Centers of Hawaii (Formerly Hawaii Assistive Technology Training and Services, or HATTS)

414 Kuwili Street, Suite 104
Honolulu, HI 96817
(808) 532-7110
http://www.atrc.org

Idaho Assistive Technology Project *(IATP)*

University of Idaho
Idaho Center on Developmental Disabilities
129 West Third Street, Professional Building
Moscow, ID 83843-4401
(208) 885-3559
http://www.its.uidaho.edu/cdhd/

Illinois Assistive Technology Project *(IATP)*

1 West Old State Capitol Plaza, Suite 100
Springfield, IL 62701
(217) 522-7985
http://www.iltech.org

Iowa Program for Assistive Technology *(IPAT)*

University of Iowa
University Hospital School
100 Hawkins Drive, Room S295
Iowa City, IA 52242-1011
(800) 331-3027
http://www.uiowa.edu/infotech/

(Kansas) Assistive Technology for Kansans

University of Kansas-Parsons, UAP
Parsons Assistive Technology Center
2601 Gabriel Avenue
P.O. Box 738
Parsons, KS 67357
(316) 421-8367
http://www.atk.lsi.ukans.edu

Kentucky Assistive Technology Service Network *(KATS)*

Kentucky Department for the Blind/KATS Coordinating Center
Charles McDowell Center
8412 Westport Road
Louisville, KY 40242
(502) 327-0022 or (800) 327-5287
http://www.katsnet.org

Louisiana Assistive Technology Access Network *(LATAN)*

P.O. Box 14115
Baton Rouge, LA 70898-4115
(225) 925-9500 or (800) 270-6185
http://www.latan.org

Maryland Technology Assistance Program *(MDTAP)*

2301 Argonne Drive T17
Baltimore, MD 21218
(800) 832-4827
http://www.mdtap.org

Massachusetts Assistive Technology Partnership Center *(MATP Center)*

Massachusetts Commission for the Deaf and Hard of Hearing
Children's Hospital, Boston
1295 Boylston Street, Suite 310
Boston, MA 02215
(617) 355-7820
http://www.matp.org

Michigan's Assistive Technology Project: TECH 2000

Michigan Jobs Commission —Rehabilitation Services
Michigan Disability Rights Coalition
740 West Lake Lansing Road
Suite 400
East Lansing, MI 48823
(517) 333-2477
http://www.copower.org

(Minnesota) System of Technology to Achieve Results *(STAR)*

Governor's Advisory Council on Technology for People with Disabilities
300 Centennial Building
658 Cedar Street
St. Paul, MN 55155
(651) 296-2771 or (800) 657-3862
http://www.admin.state.mn.us/assistivetechnology/

Missouri Assistive Technology Project *(MATP)*

Missouri Department of Labor and Industrial Relations
Governor's Council on Disability
4731 South Cochise, Suite 114
Independence, MO 64055-6975
(816) 373-5193
http://www.dolir.state.mo.us/matp/

The Montana Rural Institute on Disabilities

University of Montana
52 Corbin Hall
Missoula, MT 59812
(406) 243-5467 or (800) 732-0323
http://ruralinstitute.umt.edu

Nebraska Assistive Technology Partnership

5143 South 48th Street, Suite C
Lincoln, NE 68516-2204
(402) 471-0734 or (888) 806-6287
http://www.nde.state.ne.us/ATP/TECHome.html

(New Hampshire) Institute on Disability

University of New Hampshire
7 Leavitt Lane, Suite 101
Durham, NH 03824-3522
(603) 862-4320
http://www.iod.unh.edu

New Mexico Technology Assistance Program *(NMTAP)*

435 Saint Michaels Drive, Building D
Santa Fe, NM 87505
(800) 866-2253 (ABLE)
http://www.nmtap.com

New Jersey Protection and Advocacy, Inc.

210 South Broad Street, 3rd Floor
Trenton, NJ 08608
(609) 292-9742
http://www.njpanda.org/NJPAhome.html

New York State Office of Advocate for Persons with Disabilities

1 Empire State Plaza, Suite 1001
Albany, NY 12223-1150
(518) 474-2825
http://www.advoc4disabled.state.ny.us/

North Carolina Assistive Technology Project

North Carolina Department of Human Resources
Division of Vocational Rehabilitation Services
1110 Navaho Drive, Suite 101
Raleigh, NC 27609
(919) 850-2787
http://www.mindspring.com/~ncatp

(North Dakota) Interagency Program for Assistive Technology *(IPAT)*

North Dakota Office of Vocational Rehabilitation
Department of Human Services
P.O. Box 743
Cavalier, ND 58220
(701) 265-4807
http://www.ndipat.org

CNMI System of Technology-Related Assistance for Individuals with Disabilities *(STRAID)*

Commonwealth of the Northern Mariana Islands (CNMI)
Governor's Council on Developmental Disabilities
P.O. Box 502565
Saipan, MP 96950-2565
(670) 664-7000
http://www.cnmiddcouncil.org/atstraid/atflash.htm

Assistive Technology of Ohio

J. L. Camera Center, 9th Floor
2050 Kenny Road
Columbus, OH 43221
(614) 292-2426 or (800) 784-3425
http://www.atohio.org

Oklahoma ABLE Tech Assistive Technology Project

Oklahoma State University Wellness Center
1514 West Hall of Fame Road
Stillwater, OK 74078-2026
(405) 744-9864 or (800) 257-1705
http://okabletech.okstate.edu

Pennsylvania's Initiative on Assistive Technology *(PIAT)*

Temple University
Institute on Disabilities/UAP
Room 423 Ritter Annex
1301 Cecil B. Moore Avenue
Philadelphia, PA 19122
(215) 204-1356 or (800) 204-7428
http://www.temple.edu/inst_disabilities/

Rhode Island Assistive Technology Access Partnership *(ATAP)*

Rhode Island Department of Human Services
Office of Rehabilitation Services
40 Fountain Street
Providence, RI 02903-1898
(401) 421-7005
http://www.ors.state.ri.us/

South Carolina Assistive Technology Program

USC School of Medicine
Center for Disability Resources
Columbia, SC 29208
(803) 935-5263
http://www.public.usit.net/jjendron/

South Dakota Assistive Technology Project *(DakotaLink)*

South Dakota Department of Human Services
Division of Rehabilitation Services

IDEAs that Work
U.S. Office of Special Education Programs

Black Hills Special Services Cooperative
1925 Plaza Boulevard
Rapid City, SD 57702
(605) 224-5336
http://dakotalink.tie.net/

Tennessee Technology Access Project *(TTAP)*

Cordell Hull Building, 5th Floor
425 5th Avenue North
Nashville, TN 37243
(615) 532-3122 or (800) 732-5059
http://www.state.tn.us/mental/ttap.html

Texas Assistive Technology Partnership *(TATP)*

The University of Texas at Austin
Texas UAP/Department of Special Education
SZB Room 306, D5300
Austin, TX 78712-1290
(512) 471-7621
http://www.edb.utexas.edu/coe/depts/sped/tatp/tatp.html

Utah Assistive Technology Program *(UATP)*

6588 Old Main Hill
Logan, UT 84322-6588
(435) 797-3824
http://www.uatp.usu.edu

Vermont Assistive Technology Project

Vermont Department of Aging and Disabilities
103 South Main Street
Weeks Building
Waterbury, VT 05671-2305
(802) 241-2620
http://www.dad.state.vt.us/atp/

Virginia Assistive Technology System *(VATS)*

Virginia Department of Rehabilitative Services
8004 Franklin Farms Drive
Richmond, VA 23288-0300
(804) 662-9990
http://www.vats.org

Washington Assistive Technology Alliance *(WATA)*

Washington Division of Vocational Rehabilitation
University of Washington
Box 357920
Seattle, WA 98195-7920
(206) 685-4181 or (800) 841-8345
http://wata.org

West Virginia Assistive Technology System *(WVATS)*

West Virginia Division of Rehabilitation Services
West Virginia University Affiliated Center for Developmental Disabilities
955 Hartman Run Road
Morgantown, WV 26505
(304) 293-7294
http://www.ced.wvu.edu/Programs/Community/WVATS/index.htm

WI Assistive Technology Information Network: WisTech

Division of Supportive Living
P.O. Box 7851
1 West Wilson Street, Room 450
Madison, WI 53707
(608) 266-9303
http://www.wistech.org

Wyoming New Options in Technology *(WYNOT)*

1465 North 4th Street, Suite 111
Laramie, WY 82072
(307) 766-2084 or (800) 861-4312
http://wind.uwyo.edu/wynot/

ALLIANCE FOR TECHNOLOGY ACCESS RESOURCE CENTERS

The Alliance for Technology Access (ATA) is a nationwide network of nonprofit, community-based resource centers "dedicated to providing information and support services to children and adults with disabilities and increasing their use of standard, assistive, and information technologies." Currently, there are 40 Alliance resource centers in 28 states. Some centers serve only the state in which they are located, but others provide services across state lines to surrounding counties or metropolitan areas.

Generally, Alliance centers provide information and referral, technical assistance, and training services. Alliance centers emphasize hands-on activities, and many centers support assessment and evaluative services, product demonstrations, lending library resources, computer lab access, technology workshops, and professional development training. Some centers collaborate with commercial publishers to develop effective products, and many work closely with local school districts to provide assessment, support, and technical assistance to students and educators.

NATIONAL OFFICE

2175 East Francisco Boulevard, Suite L
San Rafael, CA 94901
(415) 455-4575
(415) 455-0491 (TTY)
http://www.ataccess.org/
E-mail: atainfo@ataccess.org

A complete state-by-state listing of Alliance for Technology Access Resource Centers is provided below. (Please note that some states currently have no Alliance Resource Centers.) Consult the organizations in your state for more information about the services they provide.

STATE RESOURCE CENTERS

ALABAMA

Birmingham Alliance for Technology Access Center
Birmingham Independent Living Center
206 13th Street South
Birmingham, AL 35233-1317
(205) 251-2223
E-mail: mikenorris@mindspring.com

Technology Assistance for Special Consumers
P.O. Box 443
Huntsville, AL 35804
(205) 532-5996
tasc@traveller.com
http://tasc.ataccess.org

ARIZONA

Technology Access Center of Tucson
P.O. Box 13178
4710 East 29th Street
Tucson, AZ 85732-3178
(520) 745-5588 ext. 1265
tactaz@aol.com

ARKANSAS

Technology Resource Center
c/o Easter Seals Arkansas
3920 Woodland Heights Road
Little Rock, AR 72212-2495
(501) 227-3602
atrce@aol.com
http://www.arkeasterseals.org

CALIFORNIA

Center for Accessible Technology
2547 8th Street, 12–A
Berkeley, CA 94710-2572
(510) 841-3224
info@cforat.org
http://www.cforat.org

Computer Access Center
P.O. Box 5336
Santa Monica, CA 90409
(310) 338-1597
cac@cac.org
http://www.cac.org

iTECH—Parents Helping Parents
3041 Olcott Street
Santa Clara, CA 95054-3222
(408) 727-5775
iTech@php.com
http://www.php.com

Team of Advocates for Special Kids
100 West Cerritos Avenue
Anaheim, CA 92805-6546
(714) 533-8275
taskca@aol.com

FLORIDA

CITE, Inc.—Center for Independence, Technology & Education
215 East New Hampshire Street
Orlando, FL 32804
(407) 898-2483
citeinfo@cite-fl.com

GEORGIA

Tech-Able, Inc.
1114 Brett Drive, Suite 100
Conyers, GA 30094
(770) 922-6768
techable@america.net

HAWAII

Aloha Special Technology Access Center
710 Green Street
Honolulu, HI 96813
(808) 523-5547
astachi@yahoo.com
http://www.geocities.com/astachi/index.html

IDAHO

United Cerebral Palsy of Idaho, Inc.
5530 West Emerald
Boise, ID 83706
(208) 377-8070
ucpidaho@aol.com
http://ucpidaho.ataccess.org

ILLINOIS

Northern Illinois Center for Adaptive Technology
3615 Louisiana Road
Rockford, IL 61108-6195
(815) 229-2163
davegrass@earthlink.net
http://www.nicat.ataccess.org

Technical Aids & Assistance for the Disabled Center
1950 West Roosevelt Road
Chicago, IL 60608
(312) 421-3373 or (800) 346-2939
taad@interaccess.com
http://homepage.interaccess.com/~taad

INDIANA

Assistive Technology Training and Information Center
Attic: A Resource Center on Independent Living
3354 Pine Hill Drive
P.O. Box 2441
Vincennes, IN 47591
(812) 886-0575
inattic1@aol.com
http://www.theattic.org

KANSAS

Technology Resource Solutions for People
1710 West Schilling Road
Salina, KS 67402
(785) 827-9383
trspks@midusa.net

KENTUCKY

Bluegrass Technology Center
961 Beasley Street, Suite 103A
Lexington, KY 40507
(859) 294-4343
office@bluegrass-tech.org
http://www.bluegrass-tech.org

Enabling Technologies of Kentuckiana
Louisville Free Public Library
301 York Street
Louisville, KY 40203-2257
(502) 574-1637
(800) 890-1840 (KY only)
entech@iglou.com
http://www.kde.state.ky.us/oet/customer/at/

Western Kentucky Assistive Technology Consortium
P.O. Box 266
Murray, KY 42071
(270) 759-4233
wkatc@cablecomm-ky.net
http://www.kde.state.ky.us/oet/customer/at/

MARYLAND

Learning Independence Through Computers, Inc. (LINC)
1001 Eastern Avenue, 3rd Floor
Baltimore, MD 21202
(410) 659-5462
lincmd@aol.com
http://www.linc.org

MICHIGAN

Michigan's Assistive Technology Resource
1023 South US 27
St. Johns, MI 48879-2424
(517) 224-0333 or (800) 274-7426
matr@match.org
http://www.matr.org

MINNESOTA

PACER Computer Resource Center
4826 Chicago Avenue South
Minneapolis, MN 55417-1098
(612) 827-2966
E-mail: pacercrc@aol.com
http://www.pacer.org/crc/crc.htm

MONTANA

Parents, Let's Unite for Kids (PLUK)
516 North 32nd Street
Billings, MT 59101
(406) 255-0540
(800) 222-7585 (MT only)
plukinfo@pluk.org
http://www.pluk.org

NEW JERSEY

TECH Connection
Assistive Technology Solutions
c/o Family Resource Associates, Inc.
35 Haddon Avenue
Shrewsbury, NJ 07702-4007
(908) 747-5310
tecconn@aol.com

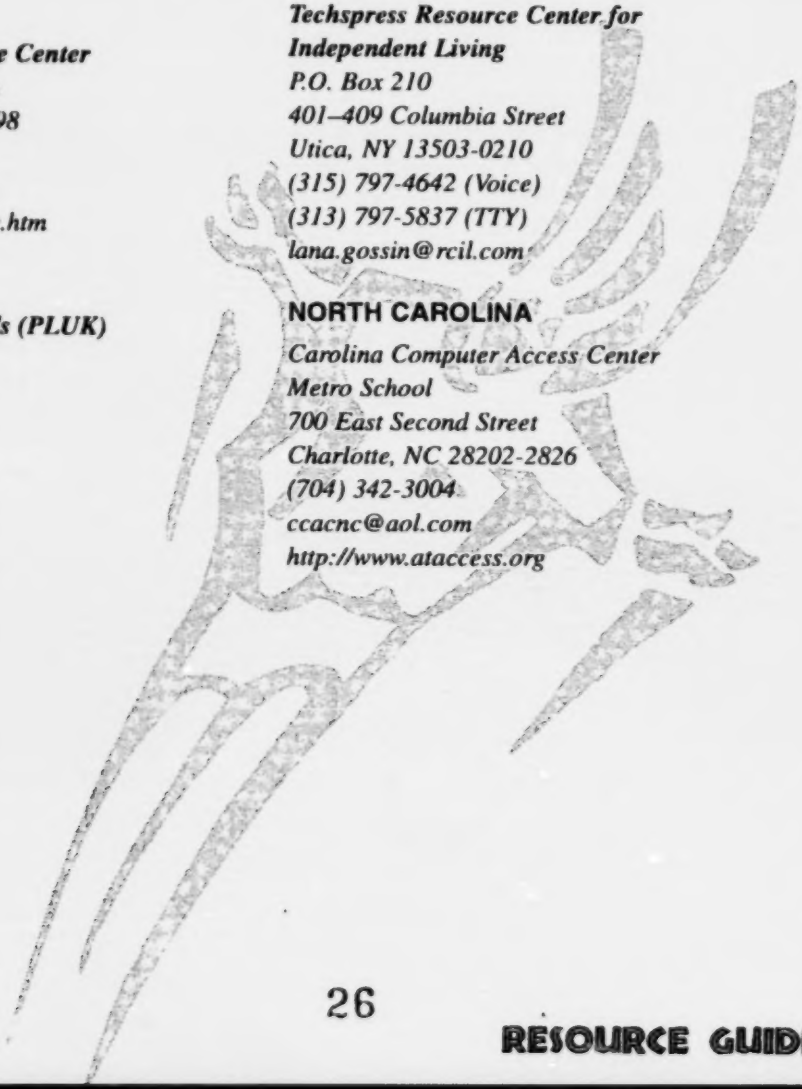
Center for Enabling Technology
622 Route 10 West, Suite 22B
Whippany, NJ 07981
(973) 428-1455 (Voice)
(973) 428-1450 (TTY)
cetnj@aol.com

NEW YORK

Techspress Resource Center for Independent Living
P.O. Box 210
401–409 Columbia Street
Utica, NY 13503-0210
(315) 797-4642 (Voice)
(313) 797-5837 (TTY)
lana.gossin@rcil.com

NORTH CAROLINA

Carolina Computer Access Center
Metro School
700 East Second Street
Charlotte, NC 28202-2826
(704) 342-3004
ccacnc@aol.com
http://www.ataccess.org



OHIO

Technology Resource Center
1133 Edwin C. Moses Boulevard, Suite 370
Dayton, OH 45424
(937) 461-3305
trcdoh@aol.com

RHODE ISLAND

TechACCESS Center of Rhode Island
110 Jefferson Boulevard
Warwick, RI 02888
(401) 463-0202
(800) 916-TECH (RI only)
techaccess@techaccess-ri.org

TENNESSEE

East Tennessee Technology Access Center, Inc.
4918 North Broadway
Knoxville, TN 37918
(423) 219-0130
etstactn@aol.com
http://www.korrnet.org/ettac/

Technology Access Center of Middle Tennessee
Fountain Square, Suite 126
2222 Metrocenter Boulevard
Nashville, TN 37228
(615) 248-6733 or (800) 368-4651
tac.tn@nashville.com

West Tennessee Special Technology Access Resource Center (STAR)
P.O. Box 3683
60 Lynoak Cove
Jackson, TN 38305
(901) 668-3888 or (800) 464-5619
mdoumitt@starcenter.tn.org or
infostar@starcenter.tn.org
http://www.starcenter.tn.org

UTAH

The Computer Center for Citizens with Disabilities
c/o Utah Center for Assistive Technology
1595 West, 500 South
Salt Lake City, UT 84104
(801) 877-9533
cboogaar@usor.state.ut.us

VIRGIN ISLANDS

Virgin Islands Resource Center for the Disabled, Inc.
P.O. Box 308427
St. Thomas, VI 00803-8427
(809) 777-2253
vircd@islands.vi

VIRGINIA

Tidewater Center for Technology Access
1413 Laskin Road
Virginia Beach, VA 23451
(757) 437-6542
tcta@aol.com
http://tcta.ataccess.org

WEST VIRGINIA

Eastern Panhandle Technology Access Center, Inc.
P.O. Box 987
300 S. Lawrence Street
Charles Town, WV 25414
(304) 725-6473
eptac@earthlink.net
http://eptac.ataccess.org

IDEAs that Work
U.S. Office of Special Education Programs

SPECIAL EDUCATION RESOURCE CENTERS

These centers constitute a nationwide technical assistance network to respond to the needs of students with disabilities, especially students from underrepresented populations. Through their work, the resource centers provide a national precedent for establishing technical assistance activities within and across regions by identifying and synthesizing emerging issues and trends. Also, the resource centers work with OSEP to plan national conferences of education professionals, with the object of communicating OSEP priorities and promoting positive systemic change in special education programs across the nation.

The Federal Resource Center for Special Education *(FRC)*

Academy for Educational Development
1875 Connecticut Avenue, N.W., Suite 900
Washington, DC 20009
(202) 884-8215 (Voice)
(202) 884-8200 (TTY)
frc@aed.org
http://www.dssc.org/frc/

Northeast Regional Resource Center *(NERRC)*

Learning Innovations at Wested
20 Winter Sport Lane
Williston, VT 05495
(802) 658-5036 (Voice)
(802) 860-1428 (TTY)
nerrc@wested.org or nerrc@aol.com
http://www.wested.org/nerrc

Mid-South Regional Resource Center *(MSRRC)*

Human Development Institute
University of Kentucky
126 Mineral Industries Building
Lexington, KY 40506-0051
(606) 257-4921 (Voice)
(606) 257-2903 (TTY)
MSRRC@ihdi.ihdi.uky.edu
http://www.ihdi.uky.edu/projects/MSRRC/index.html

South Atlantic Regional Resource Center *(SARRC)*

Auburn University Montgomery
P.O. Box 244023
Montgomery, AL 36124
(334) 244-3457
jwright@edla.aum.edu
http://edla.aum.edu/serrc/serrc.html

Great Lakes Area Regional Resource Center *(GLARRC)*

Center for Special Needs Populations
The Ohio State University
700 Ackerman Road, Suite 440
Columbus, OH 43202
(614) 447-0844 (Voice)
(614) 447-8776 (TTY)
marshall.76@osu.edu
http://www.csnp.ohio-state.edu/glarrc.htm

IDEAs that Work
U.S. Office of Special Education Programs

Mountain Plains Regional Resource Center *(MPRRC)*

Utah State University
1780 North Research Parkway, Suite 112
Logan, UT 84341
(801) 752-1238 (Voice)
(801) 753-9750 (TTY)
cope@cc.usu.edu
http://www.usu.edu/~mprrc

Western Regional Resource Center *(WRRC)*

1268 University of Oregon
Eugene, OR 97403-1268
(541) 346-5641 (Voice)
(541) 346-0367 (TTY)
richard_zeller@ccmail.uoregon.edu
http://interact.uoregon.edu/wrrc/wrrc.html

RESEARCHERS AS RESOURCES

Contact information follows for researchers who contributed to the OSEP-sponsored synthesis report on the appropriate selection and use of assistive technology. Each of these researchers can be called upon to answer specific assistive technology questions. Included along with contact information are descriptions of their areas of expertise and of the age range and type of disability of the population with whom they work.

Sandi Baker
Director, ENTECH (Enabling Technologies of Kentuckiana)
301 York Street
Louisville Free Public Library
Louisville, KY 40203
(502) 574-1637
sandibaker@yahoo.com

Age range: All

Type of Disability: All

Area of Specialization: AT assessment, training, and policy

Deb Bauder
Codirector, Project STATUS
Professor, Teaching and Learning
University of Louisville
(502) 852-0564
bauder@louisville.edu

Age range: Elementary

Type of Disability: Communication disorders, physical disorders, learning disabilities, visual disabilities, and autism

Area of Specialization: Improving assessment for rural students; AT consultation and support

Hank Bersani
TECHTRANS
Chair, Division of Special Education
Associate Professor of Special Education
Western Oregon University
345 North Monmouth Avenue
Monmouth, OR 97361
(503) 838-8687
hbersani@wou.edu

Age Range: Children and adults

Area of Specialization: AT for communication, identifying AT components of transition models, AT transition, AT in the classroom, AT in adult services, AT to promote self-determination, program development

Mary Brady
Director of Professional Development
Center for Social Development and Education
University of Massachusetts, Boston
100 Morrissey Boulevard
Boston, MA 02125-3933
(617) 287-7254
mary.brady@umb.edu

Type of Disability: Cognitive (mental retardation and learning disabilities)

Area of Specialization: Preparing teachers to integrate technology within curriculum (assistive, educational, and with features of universal design for learning)

Kent Coffey
Coprincipal Investigator,
Project STAR (Steppingstones from Technology to Action and Results)
Associate Professor, Curriculum & Instruction
Allen Hall, Room 338
Box 9705
Mississippi State, MS 39762
(662) 325-2188
kcoffey@colled.msstate.edu

Age range: Elementary and secondary

Type of Disability: Learning disabilities

Area of Specialization: Building AT teams in local schools, using a PC platform for AT, and integrating low-tech adaptations into programming for students with severe disabilities

Lori Goetz
Director, California Deaf-Blind Services (CDBS)
Professor, Special Education
San Francisco State University
1600 Holloway Avenue
San Francisco, CA 94132
(415) 338-6230

Age Range: Students aged 0–22 and their families

Type of Disability: Combination vision and hearing impairments; multiple disabilities

Area of Specialization: Program planning; training service providers (teachers, school systems); assessment; direct services to students; and communication strategies and social integration

Paula Goldberg, Director
Jean Nelson, Coordinator
Project KITE (Kids Included through Technology are Enriched)
PACER Center
8161 Normandale Boulevard
Minneapolis, MN 55437-1044
(952) 838-9000
pgoldberg@pacer.org
jnelson@pacer.org
http://www.pacer.org

Age Range: 3–8

Type of Disability: All

Area of Specialization: Training parents and teachers to more effectively include young children with disabilities in their homes and classrooms in culturally sensitive ways through AT use

Debra Hart
Institute for Community Inclusion, Boston Children's Hospital
(617) 355-7443

Age Range: All ages

Type of Disability: All

Area of Specialization: Providing technical assistance in the development of adoption policies; training school personnel and family members about available AT funding options; and developing AT teams to heighten awareness about AT potential

Pam Hunt
Codirector, Self-Efficacy and Inclusion of Students with AAC Needs
Professor, Special Education
San Francisco State University
1600 Holloway Avenue
San Francisco, CA 94132
(415) 338-7848
hunt@sfsu.edu

Age Range: Elementary

Type of Disability: Students with severe disabilities

Area of Specialization: Inclusive practices and research, early communication, and social competency

Elizabeth Lahm
Principal Investigator, University of Kentucky Assistive Technology Project (UKAT)
Assistant Professor, Special Education
237f Taylor Education Building
University of Kentucky
Lexington, KY 40506-0001
(859) 257-1520
ealahm1@pop.uky.edu

Age Range: Birth to 21

Type of Disability: All

Area of Specialization: AT policy, screening, assessment, information systems, use, and impact; IEP development

Janice Light
Pennsylvania State University AAC Project
217 Moore Building
University Park, PA 16802
(814) 863-2010
jcl4@psu.edu

Age Range: All ages

Type of Disability: Students with disorders that require AAC

Area of Specialization: Augmentative and alternative communication (AAC)

Kathy McWhorter
Project Coordinator, Navajo ABLE
435 St. Michaels Drive
Building D
Santa Fe, NM 87505
(505) 954-8540 or (800) 866-2253
kathym@state.nm.us

Age Range: 0–21

Type of Disability: All

Area of Specialization: AT assessment and training; technical support and consultation

Melissa Miller
Director, Assistive Technology Consortium
P.O. Box 266
Murray, KY 42071
(270) 759-4233
wkatc@wk.net

Age Range: All

Type of Disability: All

Area of Specialization: Augmentative communication and early intervention

Susan Mistrett
Director, AT Training ONLINE
University of Buffalo
Department of Occupational Therapy
515 Kimball Tower
3435 Main Street
Buffalo, NY 14214
(716) 829-3141, ext. 155
mistrett@acsu.buffalo.edu

Age Range: K–5

Type of Disability: All

Area of Specialization: Selection, adaptation, and use of AT for infants and toddlers, preschool children, and elementary students with disabilities; whole-school AT approaches; and identification of best practices in AT

Bart Pisha
Director of Research, CAST
39 Cross Street
Peabody, MA 01960
(978) 531-8555, ext. 226 (Voice)
(978) 538-3110 (TTY)
bpisha@cast.org
http://www.cast.org

Age Range: Elementary through postsecondary

Type of Disability: Cognitive

Area of Specialization: Acquisition of keyboarding skills; technology for teaching and acquisition of early literacy skills; integration of students with special needs into regular classrooms; and technologies that can support learning disabled students in the areas of writing, organization, planning, and follow through

Steven Rosenberg
Director, Strategies for Active Inclusion
Associate Professor, Psychiatry
University of Colorado Health Sciences Center
Campus Box C268–63
Denver, CO 80262
(303) 315-0178
steven.rosenberg@uchsc.edu

Age Range: Preschool, middle, and high school students

Type of Disability: Motor disabilities and developmental disabilities

Area of Specialization: Outcomes research, health services research, and program development

Gloria Soto
Codirector, Self Efficacy and Inclusion of Students with AAC Needs
Associate Professor, Special Education
San Francisco State University
1600 Holloway Avenue
San Francisco, CA 94132
(415) 338-1757
gsoto@sfsu.edu

Age Range: Elementary

Type of Disability: Students with severe disabilities

Area of Specialization: Inclusive practices and research, early communication, and social competency

Jeanne Wilcox
Director, Infant Child Research Programs
Professor, Department of Speech and Hearing Science
Arizona State University
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Age Range: Early Childhood

Area of Specialization: Inservice and preservice training for personnel in early childhood special education, adaptive play, computers, and augmentative communication devices

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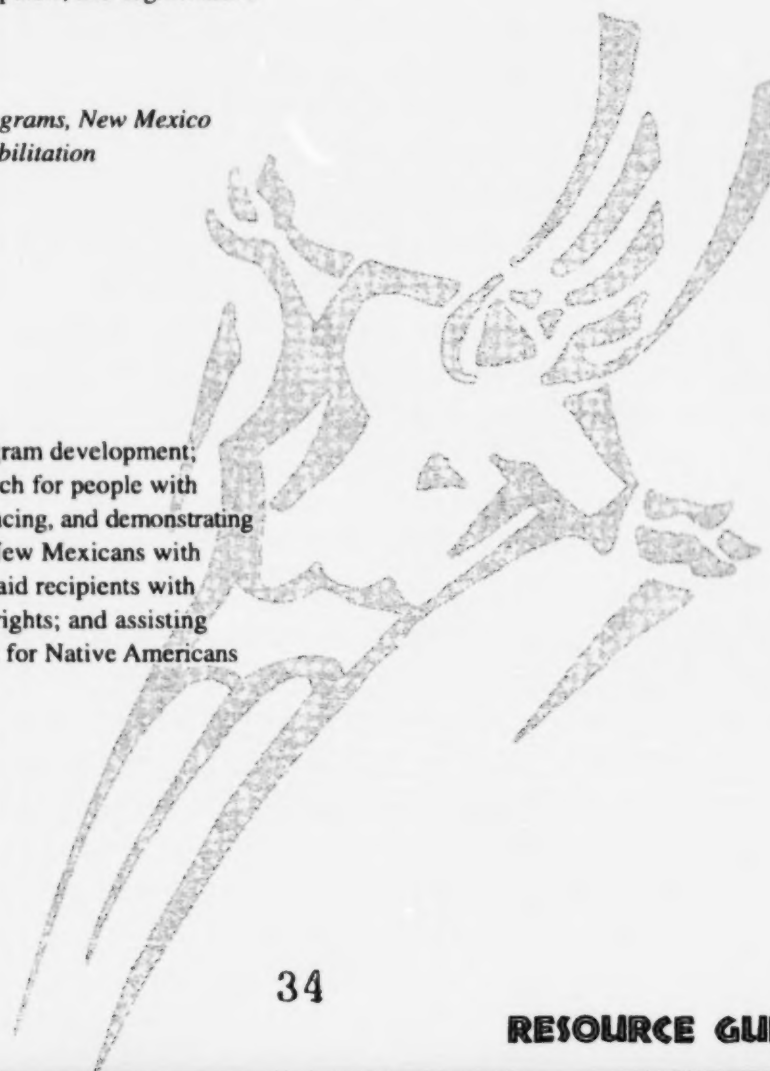
Age Range: 14 and up

Type of Disability: All

Area of Specialization: Program development; legislation and public research for people with disabilities; increasing, enhancing, and demonstrating programs and services for New Mexicans with disabilities; assisting Medicaid recipients with knowing their benefits and rights; and assisting with supported employment for Native Americans with special needs



USER'S GUIDE

USER'S GUIDE

"I CAN SOAR" VIDEO USER'S GUIDE

To assist you in using this video most effectively, we have developed a series of collateral materials to build on the information in the video, which can enhance and supplement systems of support around the use of assistive technology. They potentially can be used by such diverse stakeholders as teachers, family members, administrators, teacher trainers, researchers, and policymakers. The *User's Guide* will describe the different components of this video kit, provide you with some basic information about assistive technology, and offer suggestions for how to use this video kit to inform and improve your work.

OBJECTIVES OF THE VIDEO KIT

The objective of the video and its collateral materials is to reach out to multiple audiences with useful information and tips concerning the appropriate selection and use of assistive technology. Recognizing that different audiences have different information needs, this video kit incorporates a range of information designed to meet those needs.

For example, the 26-minute video entitled *Assistive Technology: I Can Soar:*

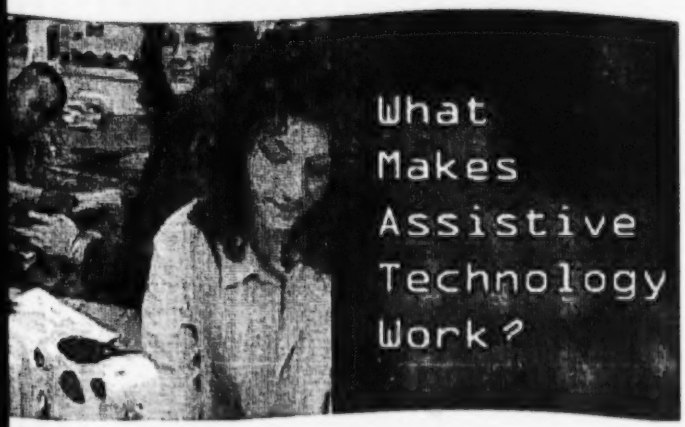
- Shows how assistive technology has been integrated successfully into the lives of four children with disabilities;
- Builds awareness for family members, teachers, and administrators about the benefits of assistive technology for students with disabilities; and
- Inspires family members, teachers, and administrators to learn more about assistive technology, how it can benefit the children that they know, and the roles that they can play in making assistive technology work.

The accompanying collateral materials to the video

- Describe the decision-making process that went into selecting and implementing assistive technology for the children featured in the video;
- Stimulate dialogue among family members, teachers, and administrators about the best strategies for ensuring that assistive technology is effectively used with students with disabilities; and
- Provide practical, how-to information and tips to practitioners responsible for implementing assistive technology.

The video and its collateral materials can be used by family members, teachers, and administrators, as well as by teacher trainers and policy makers to raise awareness, initiate discussion, and provide guidance around the most effective ways to implement assistive technology in schools and classrooms.

To order a copy of the kit, please email ncti@air.org



INCLUDED IN THE KIT

The video, I Can Soar, features positive examples of how assistive technology has bettered the lives of students with disabilities, their families, and their educators. The attached chart, "Children, Outcomes, and Principles Highlighted in Video," describes the children, their learning challenges, the benefits that they have experienced as a result of using assistive technology, and the best practice principles that have guided successful implementation of assistive technology into their daily lives.

A series of materials has been developed to accompany this video. Each individual product can serve as a stand-alone resource or can be used in conjunction with other pieces to provide you with the information and support you need to move from mere interest in assistive technology to advocacy, implementation, and systematization. Using the video and its collateral materials, audiences can work together to promote the use of assistive technology in the classroom to improve results for all students.

Along with this *User's Guide*, materials in the video kit include:

- ***Principles in Practice: Four Stories.*** Teachers and administrators watching the video will want to know how they can use assistive technology in their own schools and classrooms to create benefits similar to those illustrated in the video. The vignettes included in this kit build on the stories told in the video and describe *how* the people involved selected, gained access to, and implemented assistive technology for their students.

- ***Executive Summary of the Synthesis on the Selection and Use of Assistive Technology.*** The use of technology in education can have a significant impact on the delivery of services to students with disabilities, yet its potential cannot be fully realized unless it is implemented appropriately. The Executive Summary of this government-sponsored synthesis report lists and describes seven principles for the effective implementation of assistive technology.

- ***Fact Sheet on IDEA and Assistive Technology.*** This fact sheet explains how federal special education law defines assistive technology and what the law requires of schools with respect to providing assistive technology for students with disabilities.

- ***Resource Guide.*** Many teachers, family members, and administrators lack the resources necessary to help students with disabilities succeed in school. To help get the right information into your hands, we have included a resource guide with a listing of government agencies, national organizations, technical assistance providers, resource centers, and researchers.

IDEAs that Work
U.S. Office of Special Education Programs

General facts about assistive technology

According to the Individuals with Disabilities Education Act:

- An assistive technology device is "any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve functional capabilities of a child with a disability" *(P.L. 105-17, Sec. 602(1)).*

- An assistive technology service is defined as "any service that directly assists a child with a disability in the selection, acquisition, or use of an assistive technology device" *(P.L. 105-17, Sec. 602(2)).*

- Federal special education law requires that assistive technology be included as a "special consideration" in the development of each child with a disability's Individualized Education Program *(P.L 105-17, Sec. 614(3)(B)(v)).*

- Assistive technology can range from very simple, inexpensive, low-tech tools, such as a pencil grip or a piece of velcro, to much more complex high-tech devices, such as speech synthesizers and computer software programs.

How students with disabilities benefit from assistive technology

"One can never consent to creep when one feels the impulse to soar." *(Helen Keller)*

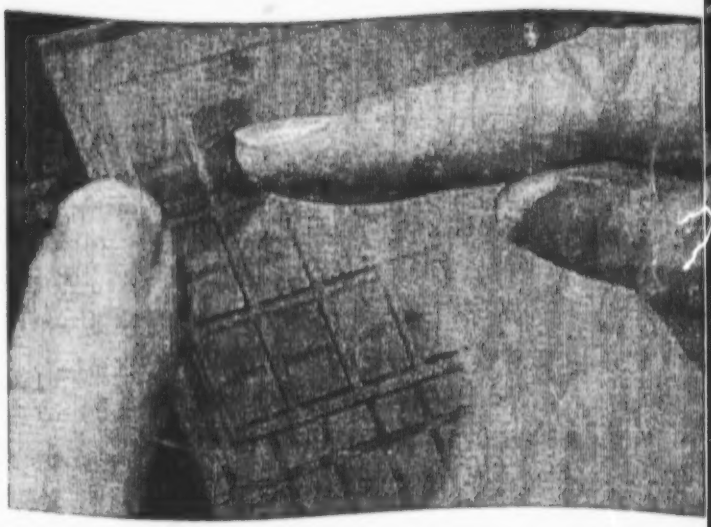
Assistive technology can play an incredibly important role in the lives of students with disabilities. It helps students to communicate and interact with their peers in ways that would otherwise be impossible. It enables them to gain access to the general education curriculum by helping address challenges they may have producing written work, reading text, or using abstract problem-solving techniques. Overall, assistive technology enhances the independence of a child with a disability, allowing the child to learn, play, and socially interact with his or her nondisabled peers.

Principles for the appropriate selection and use of assistive technology

"Despite evidence that assistive technology has been successful in improving educational, and other, outcomes for students with disabilities, its benefits are often not fully realized because of the existence of certain implementation barriers... assistive technology cannot fully realize its potential unless its implementation is facilitated." *(OSEP, Synthesis on the Selection and Use of Assistive Technology, 2000)*

Research has proven that assistive technology can help students with disabilities achieve at high levels; interact with and control their environment; communicate with their families, educators, and peers; and grow to become independent and productive citizens. However, assistive technology does not accomplish such outcomes on its own. Rather, a number of other contributing factors form a support system through which assistive technology can be effective in helping students with disabilities learn and succeed.

The U.S. Office of Special Education Programs sponsored a synthesis report that reviewed the results of 47 research projects on assistive technology, and recommended a set of seven, best practice principles that reflect lessons learned about how to implement effective strategies and reduce barriers to selecting and using assistive technology.



These seven principles are:

- *1. Providing leadership,*
- *2. Supporting stakeholder collaboration,*
- *3. Monitoring impact,*
- *4. Building capacity,*
- *5. Reducing fear and becoming comfortable with technology,*
- *6. Acknowledging diversity, and*
- *7. Focusing on supporting student learning.*

Each child featured in the video benefited from a support system that reflects these seven principles. The *Principles in Practice: Four Stories* piece included in this video kit shows you how.

Suggestions for Video Use

This video kit is designed to raise awareness about the benefits of assistive technology, motivate audiences to want to learn more, and stimulate meaningful dialogue about *how* you—as a teacher, family member, or administrator—can make assistive technology an important part of your students' and children's lives. We suggest that you incorporate this video kit into naturally occurring opportunities for professional development and technical assistance in your school or community. For example, you can arrange for a viewing of the video at staff development meetings or teacher trainings, PTA meetings, faculty meetings, or public meetings in your district. The video and its accompanying materials can engage parents, teachers, administrators, and representatives from community organizations and businesses in a thoughtful discussion and resolve some common issues of concern.

Before scheduling a viewing of the video, identify someone who can serve as a facilitator to guide discussion among the audience around the issues raised in the video. Below, we have provided suggestions for some "discussion starters," targeted towards particular audiences. These are questions to raise before and after viewing the video, which are designed to help viewers think contextually about the stories highlighted in the video, connecting the stories to their own experiences. They are also designed to connect to the best practice principles that are described in the Executive Summary of the synthesis report, included in this video kit. You should use these questions to engage your audience in a discussion around these seven principles and how they apply in their own practice.

Teachers

Before viewing the video:

- Are you currently using assistive technology in your classroom? If so, how does it address your students' learning needs? If not, how do you think assistive technology could address your students' learning needs?

  (Principle: Focusing on Supporting Student Learning)

- What type of supports do you need in order to use assistive technology?

  (Principles: Providing Leadership, Building Capacity, and Supporting Stakeholder Collaboration)

- What contributing factors apply when the assistive technology appears to "fit" the students, his or her tasks, class peers, and staff?

  (Principles: Providing Leadership, Supporting Stakeholder Collaboration, Monitoring Impact; Building Capacity, Reducing Fear and Becoming Comfortable with Technology, Acknowledging Diversity, and Focusing on Supporting Student Learning)

- How is assistive technology monitored in the classroom? What happens if it is found that a specific technology is no longer meeting the students' needs?

  (Principles: Monitoring Impact and Focusing on Supporting Student Learning)

After viewing the video:

- Were you familiar with any of the assistive technology featured in the video? What hesitations or concerns would you have about using any of these tools in your classroom?

  (Principle: Reducing Fear and Becoming Comfortable with Technology)

- If you were to use assistive technology with any of the students in your classroom, how would you go about accessing it?

  (Principle: Providing Leadership, Supporting Stakeholder Collaboration, and Building Capacity)

- If you decided to use assistive technology, who would need to be included in the selection and decisionmaking process?

  (Principle: Supporting Stakeholder Collaboration)

- How can you use technology to promote acceptance of differences and recognition of individual strengths in your classroom?

  (Principle: Acknowledging Diversity)

Families

Before viewing the video:

- Does your child currently use assistive technology? What needs does that assistive technology meet? If he or she does not use assistive technology, do you think it could help? How?

  (Principle: Focusing on Supporting Student Learning)

- How can families improve the delivery of assistive technology services?

  (Principle: Supporting Stakeholder Collaboration)

- What sources of community and school support are available for families?

  (Principles: Providing Leadership and Building Capacity)

After viewing the video:

- Were you familiar with any of the assistive technology featured in the video? What hesitations or concerns would you have about using any of these tools with your child?

  (Principle: Reducing Fear and Becoming Comfortable with Technology)

- What supports would you need to integrate the use of your child's assistive technology in home and community settings?

  (Principles: Supporting Stakeholder Collaboration and Acknowledging Diversity)

- How would you know if the assistive technology was "working" for your child? What would you do if you felt that it could be improved?

  (Principle: Monitoring Impact)

Administrators

Before viewing the video:

- What is the role of the school district in the utilization of technology? Assistive technology? Should the technology teams be responsible for assistive technology?

  (Principles: Providing Leadership and Building Capacity)

- What sources of district support are available for families, teachers, and staff?

  (Principle: Providing Leadership and Supporting Stakeholder Collaboration)

- Do you notice resistance in your school district to assistive technology? What kind of resistance, and why do you think this is so?

  (Principle: Reducing Fear and Becoming Comfortable with Technology)

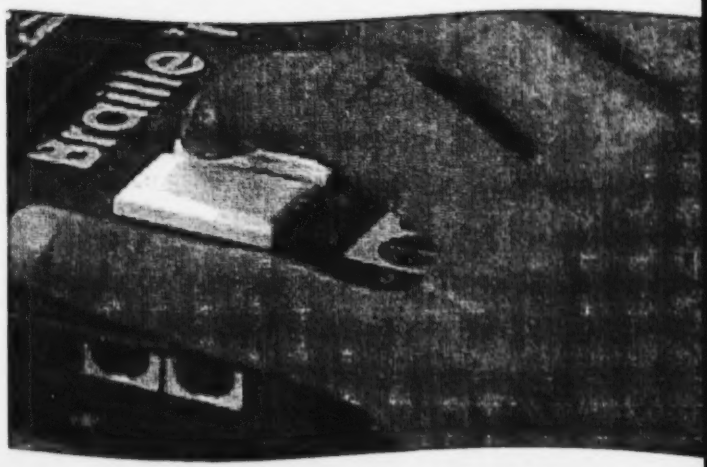
After viewing the video:

- How could assistive technology meet the varied needs of students in your district?

  (Principles: Acknowledging Diversity and Focusing on Supporting Student Learning)

- What people need to be involved in decisions surrounding the selection and use of assistive technology for use with individual students or for general use in classrooms?

  (Principle: Supporting Stakeholder Collaboration)



- How can your school develop and promote its own views and supportive programs for assistive technology?

  (Principle: Providing Leadership)

- How would you know if the assistive technology was successfully being used in your district? What would you do if you felt that it could be improved?

  (Principle: Monitoring Impact)

CHILDREN, OUTCOMES, AND PRINCIPLES HIGHLIGHTED IN VIDEO

Child	Learning challenge	Outcome	Principles*
Angie 5 years old	Angie is nonverbal, due to her cerebral palsy, and comes from a Korean-speaking family. She, therefore, faces challenges in developing her language and literacy skills, both in English and Korean.	With the use of a voice output communication aid, Angie has been able to communicate her needs and desires to her teachers, her classmates, and her family members. This has enabled her to develop her language, as well as given her a foundation from which she will continue to work on literacy skills when she enters the first grade.	• Providing leadership, • Supporting stakeholder collaboration, • Monitoring impact, • Building capacity, • Acknowledging diversity, and • Focusing on supporting student learning.
Aaron 13 years old	Aaron's multiple disabilities have interfered with his mobility, vision, fine motor, gross motor, and communication skills. He has difficulty accessing and using traditional educational materials, such as textbooks and writing utensils, independently and also faces challenges in engaging as an active participant in class.	Using tools such as a power wheelchair, special computer software, an alternative keyboard and keyguards has enabled Aaron to access the general education materials and curriculum and to participate fully and learn alongside his nondisabled peers.	• Providing leadership, • Supporting stakeholder collaboration, • Monitoring impact, • Building capacity, and • Reducing fear and becoming comfortable with technology.
Stacey 11 years old	Stacey was diagnosed with educationally significant hearing loss, which affects her ability to tune out background noise and focus on what the teacher is saying in class. In addition, her hearing loss has had an effect on her language and literacy development skills.	Stacey's FM system helps her to stay focused in class, by tuning out background noise and amplifying the sounds of the teacher's voice. In addition, Stacey's portable word-processing device helps her maintain that focus during lengthy writing assignments.	• Supporting stakeholder collaboration, • Monitoring impact, • Building capacity, • Reducing fear and becoming comfortable with technology, and • Focusing on supporting student learning.
Sean 17 years old	Sean's vision loss makes it difficult for him to access the general education curriculum in the same way as his nondisabled classmates. In geometry, for example, he finds it especially challenging to understand complex graphical concepts that are often explained in visual terms.	With the help of the vision center at his school, Sean has all of his text reading and homework assignments translated into Braille. He also uses a Braille scientific calculator that helps him understand abstract mathematical concepts, such as graphs, fractions, and decimals.	• Supporting stakeholder collaboration, • Monitoring impact, • Building capacity, • Reducing fear and becoming comfortable with technology, and • Focusing on supporting student learning.

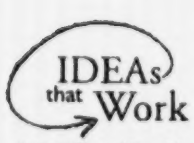
**See the "Principles in Practice: Four Stories" section of the video kit to see how these principles were critical in helping these students face their learning challenges.*

Acknowledgements

This video information package represents the efforts and dedication of many people. We would like to thank David Malouf and Jane Hauser, U.S. Department of Education, Office of Special Education Programs, for identifying the need for a synthesis to examine barriers to assistive technology and for helping to provide a vision for translating the information into a video. We would also like to recognize Dr. Al Cavalier, School of Education, University of Delaware, who provided creative leadership and insights about barriers to using assistive technologies effectively.

Finally, we appreciate the time and commitment of the teachers, families, and students who participated in the video. They were a model for us in understanding what can be done when families and educators work together to increase the access to and use of assistive technology for students with disabilities.

The development of this video information package was supported by the U.S. Department of Education, Office of Special Education Programs under contract number HS97017002. The contents of this package do not necessarily reflect the views or policies of the U.S. Department of Education, nor does mention of other organizations imply endorsement by those organizations or the U.S. Government.



U.S. Office of Special Education Programs

STORIES

ANGIE

Angie is a bright, happy 5-year-old Korean-American girl, who has mild cerebral palsy due to her premature birth. When she began preschool at the age of 3, she was completely nonverbal. Angie's inability to speak hindered her ability to communicate with her family members, her teachers, and her classmates and also hindered her ability to learn and develop literacy skills. She needed to find a way to communicate her thoughts and ideas, allowing her to become an active and engaged participant in her classroom and to gain access to the general education curriculum at her school.

Angie's teacher contacted the county's Interdisciplinary Augmentative Communication and Technology Team (InterACT) for assistance in addressing Angie's communication needs. The InterACT team, which operates at the county level, includes speech pathologists, special education teachers, occupational therapists, and support personnel who are all trained in assistive technology and augmentative communication. The role of the InterACT team is to provide consultation to school staff in the district in the process of selecting and using assistive technology—in particular, augmentative communication systems. The success of the InterACT team is due in great part to the extent to which they **support stakeholder collaboration**, by involving every-one who works with Angie in the decisionmaking process. InterACT team staff work very closely with Angie's teachers and her family members on an ongoing basis, to ensure that the assistive technology she uses continues to meet her needs.

For example, InterACT staff work closely with Angie's teachers to make sure that her augmentative communication system includes the vocabulary that Angie needs in order to progress with her language development and have access to the general education curriculum. Staff also work closely with Angie's family members to make sure that her system includes the vocabulary that Angie needs in order to communicate and function independently at home. Angie's parents, siblings, and educators all work together to **monitor** her progress, remaining **focused on her learning needs** and what it will take for her to meet those needs.

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Monitoring impact

"At the very beginning of the year Angie was very fearful about a lot of things and she would easily cry...and need to be comforted and calmed down...[now] you seldom find Angie fearful about anything. As a matter of fact, every time I walk into the room Angie has me come over to her. 'Come, come here, see what I'm doing.' And there is an independence that has grown in her...I've seen a tremendous progression in the growth of her independence from the beginning."

Judy Theiss, principal

What makes the collaborative relationship between the professionals who work with Angie and her family members especially critical is the cultural differences between them. Angie's parents speak Korean, which has raised additional challenges with respect to her language development needs. Angie's teachers and staff on the InterACT team work with her parents and her sister to program specific Korean phrases into her communication device so that she can participate actively in her family life at home. In addition, Angie's teachers recognize the need to **acknowledge diversity** and be sensitive to the differences between American and Korean cultures, specifically with respect to the collaborative relationship between parents and professionals. Angie's teachers note that in many cases, Korean Americans tend to show a great deference to professionals, and it is important that they be reminded that they do play just as important a role in Angie's education.

In Angie's school district, county leadership has been involved in an ongoing effort to **build capacity** in the area of assistive technology. The InterACT team has been in existence since 1983 and has grown tremendously over the years in terms of its staff, its expertise, and the role it plays in providing support for students with disabilities throughout the district. When the InterACT team was first created, it consisted of one person assigned half a day a week, and it has now grown to comprise a 13-member staff.

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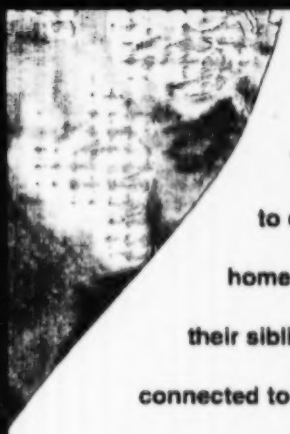

Acknowledging diversity

"It's very important for these children to be able to communicate in all settings...so the devices do go home with the children.... They can communicate with their siblings, their parents. Angie's family is very strongly connected to the Korean community with lots of parties and church gatherings. Angie does use her device to be able to participate fully."

Kathleen Abram, InterACT team director

InterACT is now a line item in the district budget, which includes support for staff, assistive technology equipment, and any other materials necessary to appropriately support the needs of the children in the district. Assistive technology has become an ingrained part of special education services. In fact, Angie's kindergarten class includes 5 other students who use augmentative communication systems, and with the support of the InterACT team, her teacher has developed the expertise required to program and troubleshoot the assistive technology herself.

Another key to Angie's success has been **leadership**. Professionals working in Angie's school district are committed to making assistive technology work, and are united under a common vision. In particular, the principal at Angie's school plays a critical role in advocating for the use of assistive technology with children with disabilities and in making sure that the necessary resources and supports are there for students, teachers, and staff.

Leadership, capacity, and teamwork are only a few of the many factors that have made Angie's experience with assistive technology a success. Because of the support she receives, Angie's communication and language development skills have greatly improved, setting her on a path towards greater independence in her life at school and at home.

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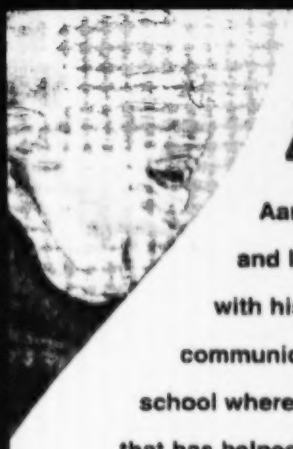

AARON

Aaron, a 13-year-old boy who loves to have fun and laugh, has multiple disabilities that have interfered with his mobility, vision, fine motor, gross motor, and communication skills. He attends his neighborhood middle school where he uses a wide range of assistive technology that has helped him to reach his educational goals. For example, a power wheelchair helps Aaron move around independently at school, computer software with large text and speech capabilities assists him in reading, and an alternative keyboard with large keys and a keyguard allows him to write and interact with the computer independently. Also, texts with large print allow Aaron to see his textbooks easily.

When Aaron first moved to the county where he lives now, his parents found a school district that was extremely welcoming of Aaron and eager to try new and innovative strategies to help him succeed. Aaron's parents were particularly impressed with the county's special education department and the **strong leadership** that conveyed a sense of vision and direction for everyone working in the district. They found the special education director in particular to be a great advocate for all of the students and someone who was open to assistive technology and the potential it had for improving the lives of students with disabilities.

When Aaron was in the second grade, expectations for him in school began to increase. This was especially true of written work, which is something Aaron has difficulty with due to his limited use of his hands. Aaron had a team of professionals who were working with him, including special education and regular education teachers, a physical therapist, an occupational therapist, a teacher of the visually impaired, a speech therapist, and an instructional assistant, who at this point began to discuss with Aaron's parents the possibility of using assistive technology. This **stakeholder collaboration** was critical in creating Aaron's success with the assistive technology he now uses. Without the involvement of everyone on this team, Aaron would not have been able to realize the benefits of increased independence and access to the curriculum that he now has.

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Focusing on supporting student learning

"I think leadership and the administrators in a...it increases their productivity. There are a lot of students who are very capable on the computer. Some students don't have that great skill. They're not very quick on the computer but...this gives them the opportunity to practice and get quicker.... Stacey has been able to write more and for a longer period of time.... She has a difficult time with writing paper and pencil but when given...[the wordprocessing device] she can type and type and type."

Erin Woodward, special education teacher

Aaron benefits from a school system that has **built the capacity** to provide ongoing support to staff and students using assistive technology. A countywide assistive technology team, which is funded as part of the special education department, exists to assist with all Individualized Education Program (IEP) teams by providing assistive technology evaluations, consultations, and training. The assistive technology coordinator and other members of the team regularly provide training at schools. They also take responsibility for constantly staying up-to-date on the latest advances in assistive technology. Given the rapid developments in technology, it is critical that professionals be aware of these changes and think about how these changes can benefit their students.

In Aaron's case, the personnel working with him conducted ongoing **monitoring** to ensure that his assistive technology was updated as necessary to reflect both his changing needs as well as advances in the technology itself. For example, as the challenges in math class grew, Aaron changed from using just manipulatives to also using a calculator with large keys and a large display. As he became better at using his limited vision and manipulating the keys of the calculator, he also began to use a regular calculator.

Aaron's parents and educators all expressed fear and trepidation around assistive technology at first. However, when they began to try different tools and learned about the ways in which Aaron could benefit, they were quickly able to **lessen their fear and become more comfortable**.

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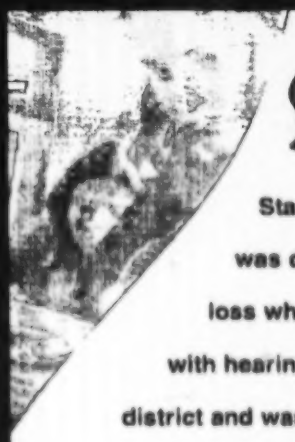
Reducing fear and becoming comfortable with technology

"In the beginning, I was really kind of shy, the technology part, because I didn't feel like I knew enough of it. But as the time went on and I was able to hook him up and get him going, and seeing the excitement when he was able to type, and it helped me to get excited, and you know, relax a lot."

Vicki Lyles, instructional assistant

They found that many of their fears were unfounded. For example, Aaron's parents used to worry that by using a power wheelchair, Aaron might become too dependent on the assistive technology and lose the motivation to become independent. However, what they and Aaron's educators have learned is that in fact the opposite is true. Children intuitively want to become independent, and so if they are given the tools, such as a wheelchair, to feel independent, their motivation to become independent will actually increase.

Aaron's success with assistive technology could not have occurred without the support and teamwork that surrounds him every day. Aaron's parents, siblings, and teachers all believe in and hold high expectations for him and are willing and eager to try whatever it will take to help him achieve his potential. With the help of assistive technology, Aaron's independence, ability to master the general education curriculum, and confidence will continue to grow.



STACEY

Stacey, an active and energetic girl in the sixth grade, was diagnosed with an educationally significant hearing loss when she was seven years old. Stacey was identified with hearing loss through a screening provided by the school district and was subsequently referred to her pediatrician and an ear, nose, and throat specialist for confirmation. While Stacey's doctors attended to her medical needs related to the hearing loss, specialists at her school were able to step in and provide the necessary hearing amplification that enabled her to participate in school and gain access to the general education curriculum along with her classmates.

Stacey is fortunate to live in a school district with a strong system of support for students with disabilities. In addition to personnel with specialized expertise in a range of disabilities and instructional methods, the county employs an Integrated Technology Services (ITS) team that handles requests for assistive technology. Any teacher who feels that assistive technology could benefit either an individual student or an entire classroom can make a referral to the ITS. The ITS consists of over a dozen staff with expertise in the use of assistive technology to improve outcomes for students with disabilities and is available to provide assistance with the selection of appropriate tools, training in the use of tools, and ongoing consultative support and assistance for teachers, students, and staff, as necessary. With ITS support as well as the help of service providers with expertise in a range of disabilities, Stacey's school district has been able to **build capacity** to help all service providers who work with Stacey to understand and meet her needs.

When Stacey began using the FM amplification system shown in the video, she, her teachers, and her parents benefited from the capacity described above. A district audiologist and deaf/hard-of-hearing itinerant teacher came to Stacey's school and conducted training with everyone who worked with Stacey. They provided hands-on demonstrations of the FM system as well as explanations about Stacey's hearing loss and how it affected her ability to access the general education curriculum. They also sat down with Stacey's parents and helped them understand the challenges that Stacey faces as well as what they could do to help her overcome some of those challenges.

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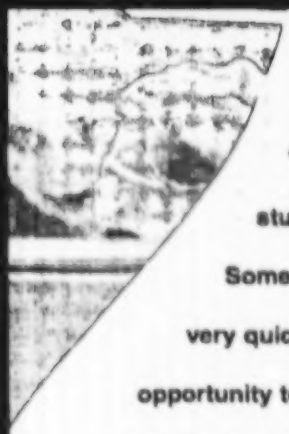

Focusing on supporting student learning

"...it increases their productivity. There are a lot of students who are very capable on the computer. Some students don't have that great skill. They're not very quick on the computer but...this gives them the opportunity to practice and get quicker.... Stacey has been able to write more and for a longer period of time.... She has a difficult time with writing paper and pencil but when given... [the wordprocessing device] she can type and type and type."

Erin Woodward, special education teacher

The team-based approach that characterizes the resources available for Stacey reflects a commitment to **supporting stakeholder collaboration**. In order for the assistive technology to be most effective in helping to improve Stacey's life, her parents, her teachers, and everyone who works with her must be involved in its implementation.

Providing support for Stacey's use of assistive technology is an ongoing process. As she has grown older, the nature of her hearing loss and her learning needs change, so the assistive technology she uses in school needs to change as well. The team of staff who work with Stacey conduct frequent evaluations in order to **monitor the impact** that the assistive technology has on her learning. For example, Stacey's audiologist and hearing itinerant teacher routinely conduct formal and informal "functional listening assessments" to determine the ways in which her hearing loss is affecting her ability to receive instruction and engage in classroom activities.

As her educational needs change, Stacey's teachers and support staff adjust the assistive technology as necessary. Stacey's hearing loss has had an impact on her language development and literacy skills, which is one reason why her special education teacher has provided her with a portable word-processing device that helps her with spelling and assists her in maintaining focus during lengthy writing tasks. The most important aspect of monitoring is to maintain **focus on the student's learning** in order to ensure that the assistive technology is helping Stacey accomplish her educational goals.

The specialists who work with Stacey know that one of the biggest barriers to implementing assistive technology in classrooms is resistance from users. As she explained in the video, Stacey herself has shown some resistance to the FM system. As she has grown older, she has also grown self-conscious about having to wear the device and worries about making friends and fitting in with her classmates. After discussing these worries with her, Stacey's audiologist, hearing itinerant teacher, and guidance counselor came up with some strategies in order to help Stacey and her classmates **reduce their fear of and become more comfortable with the technology**. One way in which they have addressed these concerns is by directly involving Stacey in peer education. Stacey was given the opportunity to get together with five or six classmates at a time, show them her FM system, and explain what it means and how it works. With the support of her teacher, Stacey met with small groups like this about ten times. This strategy helped to build her confidence and reduce her feelings of embarrassment and discomfort, as well as the discomfort and hesitation of her peers. Since then, her comfort level has increased to the point where she felt comfortable addressing the entire class, as a whole, together with her hearing itinerant teacher.

Because of the supportive environment that surrounds Stacey and the commitment and teamwork of all who work with her, Stacey has been able to experience remarkable benefits from the assistive technology that she uses in school. Her ability to pay attention, maintain focus, and follow directions has improved greatly; consequently, her academic achievement has as well. And with the help of her teachers and other support staff, Stacey has been able to overcome her resistance to the technology and build a confidence that has enabled her to make friends and develop positive social relationships with all of her peers.

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SEAN

Sean, a junior in high school, is a popular and outgoing teenager. Sean lost his sight at the age of 10, due to retinal blastoma. With the help of assistive technology, Sean is able to participate in regular classes all day long at school, socializes with all of his classmates, and learns and is assessed with the same curriculum standards as his nondisabled peers.

Sean uses several different types of assistive technology that enable him to access the general education curriculum at his high school. Everything that Sean needs to read or produce can be translated into Braille at the school's vision center. A special software program installed on Sean's laptop translates text into speech so that Sean can read. Also, Sean uses a Braille scientific calculator that allows him to conduct and comprehend graphing exercises and understand fractions and decimals. For Sean, the most important goal is to be learning the same content as his nondisabled classmates. His teachers treat him the same and have the same high expectations of Sean as they do of their other students. For Sean and his teachers, the **focus is on supporting his learning**, not on the assistive technology. So, for example, his English teacher makes sure that Sean has access to and reads all the text required for the course, while his geometry teacher is careful to explain concepts in a very detailed manner that goes beyond mere visual description.

Sean's school is equipped with a vision center, staffed by specialists in vision loss and assistive technology, as well as a technology team that handles most requests related to the general use and maintenance of assistive technology. Staff at the vision center work collaboratively with staff on the technology team to ensure that students using assistive technology are receiving the support that they require. They also are active participants in the decisionmaking process that goes into selecting appropriate assistive technology for a particular student.

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Supporting stakeholder collaboration

"Any time that a teacher brings in a project... I usually compare notes with them first.... Some of them are very involved, and I may need to communicate with them as to whether we can take out some of the lines, maybe I can add something, enlarge the project...we have to communicate with the teacher on everything practically we do... we're in constant communication with them."

Maynard Simmons, vision teacher

This decisionmaking process is driven by **stakeholder collaboration** around the student's needs. This means that Sean, members of his family, several of his teachers, and any other staff who work with Sean are all involved in discussions about using assistive technology to support his learning needs and goals.

Collaboration also occurs after the initial selection process, as support staff work collaboratively with teachers, engaging in constant, ongoing communication with them. The goal of the collaboration is to provide assistance on a consultative basis, to ensure that teachers know how to use the assistive technology, understand how it enables their students to gain access to the curriculum, and are able to make informed evaluations about whether or not a student is benefiting sufficiently from the assistive technology. It is important that staff who work with Sean **monitor the impact** of the assistive technology on his education. If a teacher feels that Sean is having difficulty with his schoolwork, he or she will work with staff at the vision center to make sure that the support Sean receives from the assistive technology remains relevant to his learning needs.

The capacity that exists at Sean's high school is extended even further when teachers work collaboratively with the specialists. The more teachers practice using assistive technology with their students with disabilities and the more they learn about the assistive technology, the more likely they are to **become comfortable with the technology and reduce their fear**.

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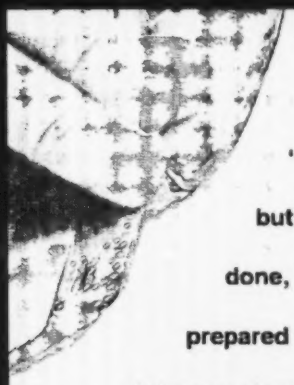

Building capacity

"With Sean in the class, I took longer to prepare, but it was worth it in the end. Now I have preparation done, in case I have another blind student, I'm somewhat prepared for them.... It's prepared me and made me think a lot more about what it is I have to do before I walk in the classroom, before I start teaching."

Patrick Daniels, high school English teacher

Once that fear is gone, teachers feel much more comfortable with assistive technology and become more open to trying new things. They are also then much more prepared to use assistive technology with students in the future, which helps to **build the capacity** of the school even further.

Sean's loss of sight hasn't prevented him from benefiting from the same educational opportunities as his nondisabled students or from following his dreams to become a lawyer. All of his teachers continue to hold high expectations for Sean, and collaborate to make sure that the assistive technology that helps Sean keeps him on track to succeeding inside and outside of school. Not only has assistive technology opened doors for Sean at school, it also has enabled him to take on a challenging internship program at Legal Aid, potentially opening doors for Sean's post-highschool goals, as well.

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